FORESTRY ABSTRACTS

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READERS' GUIDE

1. **Terminology.** Terms included in the *Concise Oxford Dictionary, Chamber's Dictionary of Science and Technology* and the *Terminology of Forest Science, Technology, Practice and Products* are used without explanation. Other terms from particular sciences may also be used without explanation if it is thought that they are familiar to those readers likely to be concerned.

2. **Title Citations:**

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Ch	= Chinese	In	= Indonesian	Ro	= Rumanian
Cs	= Czech	Is	= Icelandic	Ru	= Russian
Da	= Danish	It	= Italian	Sh	= Serbo-Croatian
De	= German	Ja	= Japanese	Sk	= Slovakian
Ee	= Estonian	Ko	= Korean	Sn	= Slovenian
En	= English	Li	= Lithuanian	Sv	= Swedish
Es	= Spanish	Lv	= Latvian	Tr	= Turkish
Fi	= Finnish	Ma	= Macedonian	Uk	= Ukrainian

(c) Library Source. Capital letters at the end of a reference, where present—e.g. PR, ORS, etc.—show the place where the actual publication seen by the Bureau is lodged. Where no capital letters are cited the publication is lodged in the library of the Commonwealth Forestry Institute, Oxford. The following abbreviations are used:

APB	Commonwealth Bureau of Pastures and Field Crops, Hurley, Maidenhead, Berks SL6 5LR
BLL	British Library Lending Division, Boston Spa, Wetherby, Yorkshire LS23 7BQ
CFB	Commonwealth Forestry Bureau, South Parks Road, Oxford OX1 3RD
CGB	Commonwealth Bureau of Plant Breeding and Genetics, Department of Applied Biology, Downing Street, Cambridge CB2 3BX
CIE	Commonwealth Institute of Entomology, 56 Queen's Gate, London SW7 5JR
CMI	Commonwealth Mycological Institute, Ferry Lane, Kew, Richmond TW9 3AF
EMB	Commonwealth Bureau of Horticulture and Plantation Crops, East Malling Research Station, Maidstone, Kent ME19 6BJ
HSB	Rothamsted Experimental Station, Harpenden, Herts AL5 2JQ
IPC	Institute of Paper Chemistry, P.O. Box 1039, Appleton, Wisconsin 54911, USA.
LTP	Tropical Products Institute, 56/62 Gray's Inn Road, London WC1X 8LU
OAEc	Agricultural Economics Research Institute, Dartington House, Little Clarendon Street, Oxford, OX1 2HS.

OB	Bodleian Library, Oxford, OX1 2BB.
OBD	Dept. of Botany, South Parks Rd., Oxford, OX1 3RA.
OH	Hope Dept. of Entomology, University Museum, Parks Road, Oxford, OX1 3PW.
ORE	Department of Agriculture, Parks Road, Oxford, OX1 3PF.
ORS	Radcliffe Science Library, South Parks Road, Oxford, OX1 3QP.
OW	ARC Weed Research Organisation, Yarnton, Oxford, OX5 1PF.
OZ	Department of Zoology, Oxford, OX1 3PS.
PO	The British Library, Science Reference Library, 25 Southampton Buildings, Chancery Lane, London W.C.2.
PR	Building Research Establishment, Princes Risborough Laboratory, Aylesbury, Bucks HP17 9PX
Reinbek	Bundesforschungsanstalt fur Forst- und Holzwirtschaft, Leuschnerstrasse 91, 2050 Hamburg 80, W. Germany.
TRADA	Timber Research and Development Association, Hughenden Valley, High Wycombe, Bucks HP14 4ND.
X	Miscellaneous; apply to Commonwealth Forestry Bureau for details.

Editorial Note

It is regretted that because of an error in the production process this issue does not contain any cross references to other abstracts.

This is being put right and future issues will contain such references.

3. **Abbreviations, units and symbols.** (This section of the Readers' Guide will appear annually). Standard SI symbols are used for metric units; these are not included here. Occasionally, other symbols not listed here are used when it is thought that they will present no difficulty to the readers concerned; this includes many geographical abbreviations such as ACT, UK, Penn., etc.

Å	ångström
AAS	atomic absorption spectrometry
ABA	abscisic acid
a.c.	alternating current
ADP	adenosine diphosphate
a.e.	acid equivalent
AFNOR	Association Française de Normalisation
AFOCEL	Association Forêts-Cellulose
a.i.	active ingredient
alt.	altitude
approx.	approximately
ARMEF	Association pour la Rationalisation et la Mécanisation de l'Exploitation Forestière
ASTM	American Society for Testing Materials
ATP	adenosine triphosphate
Aug.	August
av.	average
b.a.	basal area
bar	bar
bd ft	board feet
b.h.	breast height
BHC	benzene hexachloride
BOD	biochemical oxygen demand
BP	before present
b.p.	boiling point
BS(I)	British Standard(s) (Institution)
Btu	British thermal unit
c.a.i.	current annual increment
cal	calorie
cAMP	cyclic adenosine monophosphate
Ci	curie
COD	chemical oxygen demand
coeff.	coefficient
COMECON	Council for Mutual Economic Aid
conc.	concentrated
concn.	concentration
const.	constant
CSIRO	Commonwealth Scientific and Industrial Research Organization (Australia)
cv.	cultivar
CV	coefficient of variation
d.b.h.	diameter at breast height
d.c.	direct current
DDT	dichlorodiphenyltrichloroethane
diam.	diameter
DIN	Deutsches Institut für Normung
dil	dilute
DM	dry matter
E.	east
ECE	Economic Commission for Europe
EEC	European Economic Community
e.g.	for example
EM	electron microscope
EPR	electron paramagnetic resonance
ERTS	earth resources technology satellite
ESR	electron spin resonance
et al.	and others
F	filial generation
°F	degree Fahrenheit
f.	son (after author)
FAO	Food and Agriculture Organization
Feb.	February
f.p.	freezing point
f.sp.	special form
ft	foot/feet
FU	food unit/fodder unit
GA	gibberellic acid
gal	gallon (Imperial or US)
GLC	gas-liquid chromatography
GOST	Gosudarstvennyĭ Obshchesoyuznyĭ Standart
h	hour
ha	hectare
hp	horse power
ht.	height
IAA	indole acetic acid
IB	internal bond
IBA	indole butyric acid
IBP	International Biological Programme
i.e.	that is
IR	infrared
ISO	International Organization for Standardardization
IUFRO	International Union of Forest Research Organizations
Jan.	January
kgf	kilogramme-force
lat.	latitude
lb	pound (weight)
lbf	pound-force
LD	lethal dose
long.	longitude
M	molar
m.a.i.	mean annual increment
max.	maximum
mbar	millibar
m.c.	moisture content
min	minute (time)
min.	minimum
ml	millilitre
MOE	modulus of elasticity
mol	mole
mol.	molecular
MOR	modulus of rupture
m.p.	melting point
N.	north
NAA	naphthyl acetic acid
NE	north-east
NMR	nuclear magentic resonance
Nov.	November
n.s.d.	no significant difference; not significantly different
NSSC	neutral sulphite semichemical
NW	north-west
o.b.	over bark
Oct.	October
OECD	Organization for Economic Cooperation and Development
opt.	optimum
oz	ounce
P	probability
Pa	pascal
p.a.	per annum
p.a.i.	periodic annual increment
PCP	pentachlorophenol
PEG	polyethylene glycol
PF	phenol formaldehyde
pH	hydrogen-ion concentration
p.p.	partly, in part
p.p.m.	parts per million
p.p.t.	parts per thousand
PVA	polyvinyl acetate
PVC	polyvinyl chloride
R	röntgen
r	coefficient of correlation
rad	rad
RF	resorcinol formaldehyde
RH	relative humidity
r.p.m.	revolutions per minute
S.	south
s.d.	standard deviation
SE	south-east
SEM	scanning electron microscope
Sept.	September
s.l.	in a broad sense
sol.	solution
sp.	species
sp.nov.	new species
s.s.	in a narrow sense
ssp.	subspecies
SW	south-west
syn.	synonym
TCA	trichloroacetic acid
TEM	transmission electron microscope
temp.	temperature
TIBA	triiodobenzoic acid
TLC	thin-layer chromatography
u.b.	under bark
UF	urea formaldehyde
UHF	ultra high frequency
ULV	ultra low volume
UNDP	United Nations Development Programme
USDA	United States Department of Agriculture
UV	ultraviolet
var.	variety
VHF	very high frequency
viz.	namely
vol.	volume
vs.	versus
v/v	volume/volume
W.	west
wk	week
wt.	weight
w/v	weight/volume
w/w	weight/weight
yr	year
3P	probability proportional to prediction
--′	minute (angle)
--″	second (angle)
∥	parallel
⊥	perpendicular

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(as at 1 September 1978)

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ERRATA

(lines are counted from the beginning of the bibliographic data in each item.)

Volume 29

Page	*Abstract*	*Line*	
Author Index			
816	Col. 1		after 'Scharpf, R.F., and Parmeter, J.R., Jr.' for '2439' read '2493'
Volume 31			
244	1975	1	for 'HERMANN, S.' read 'HERRMANN, S.'
Author Index			
912	Col. 2		delete 'Hermann, S. 1975' insert 'Herrmann, S. 1975'
Volume 36			
152	1679	1	for 'SALAMAN, M.' read 'SALAMON, M.'
567	6391	5	for '45 ref.' read '65 ref.'
Author Index			
748	Col. 3		delete 'Salaman, M. 1679' insert 'Salamon, M. 1679'
Volume 37			
165	1878	9	for '*pentanarum*' read '*pentandrum*'
371	4135	4	for '*83*' read '*85*'
402	4472	3	for '*Brazil Forestal*' read '*Brasil Florestal*'
			for '(18)' read '(19)'
514	5585	1	for '**INDA**' read '**INPA**'
Species Index			
771	Col. 1		for '***Pittosporum pentanarum***' read '***Pittosporum pentandrum***'
Volume 38			
70	659	1	for 'BHUMIBHAMON, S.' read 'SUREE BHUMIBHAMON'
123	1197	1	for 'LARSSEN' read 'LARSEN'
181	1760	8	for '*polyanthemas*' read '*polyanthemos*'
363	3613	13	for '*Sistotrema*' read '*Sistrotrema*'
610	6081	2	for '*Journal of Forestry*' read '*Quarterly Journal of Forestry*'
Author Index			
715	Col. 2		delete 'Larssen, J.B. 1197' insert 'Larsen, J.B. 1197'
Species Index			
738	Col. 2		for '***Griselina***' read '***Griselinia***'
Volume 39			
15	58	1	for 'KRINNARD, R.M.' read 'KRINARD, R.M.'
44	340	8	after '*Larix kaempferi*' insert '[*L. leptolepis*]'
81	719	8	for 'timber, cleared' read 'timber, are cleared'
124	1157	8	after '*Betula lutea*' insert '[*B. alleghaniensis*]'
131	1236	2	after '***Peniophora***' insert '[***Phlebia***]'
133	1260	2	for '***Cephaleia abietis***' read '***Cephalcia abietis***'
139	1326	2	for 'UNGKULPADIKUL' read 'UNGKULPAKDIKUL'
167	1601	9	after '*Acacia arabica*' insert '[*A. nilotica indica*]'
174	1675	7	for '*Crocodilus*' read '*Crocodylus*'

Page	*Abstract*	*Line*	
184	1753	3	after '12 ref.' add 'EMB'
193	1848	1	for 'OHOTA, S.' read 'OHTA, S.'
207	2017	3	for '*Arboricultural Journal*' read '*Journal of Arboriculture*'
216	2112	5	for 'demad' read 'demand'
216	2113	11	for 'salinties' read 'salinities'
222	2157	9	after '*Acacia arabica*' insert '[*A. nilotica indica*]'
252	2488	1	for 'ZENTMEYER, G.A.' read 'ZENTMYER, G.A.'
258	2553	10	for '*Ips sexadentatus*' read '*Ips sexdentatus*'
277	2754	12	after '*Dothistroma*' insert '[*Scirrhia*]'
285	2836	1	for 'GERMANY' read 'GERMAN FEDERAL REPUBLIC'
292	2910	21	for '*Alnus hirsuta siberica*' read '*Alnus hirsuta sibirica*'
303	3039	9	after '*Dothistroma*' insert '[*Scirrhia*]'
318	3181	11	after '*Dothistroma*' insert '[*Scirrhia*]'
319	3182	40	after '*Stilpnotia*' insert '[*Leucoma*]'
322	3214	1	for 'GERMANY' read 'GERMAN FEDERAL REPUBLIC'
329	Salicaceae		after '*See also absts.* 3212, 3219.' insert '3385'
337	3362	26	for '*Picea omorica*' read '*Picea omorika*'
350	3492	13	after '*gloeosporioides*' insert '[*Glomerella cingulata*]'
350	3493	18	after '*Peniophora*' insert '[*Phlebia*]'
362	3614	14	after '*Dothistroma*' insert '[*Scirrhia*]'
368	3672	3	for '**Samaio**' read '**Sampaio**'
391	3920	3	for '*Olea europea*' read '*Olea europaea*'
394	3946	15	for '*Cercospora sequoia*' read '*Cercospora sequoiae*'
423	4231	5	for '*FA 37*, 1635' read '*FA 37*, 1685'
432	4340	17	for '*Sclerophoma pityophila*' read '*Sclerophoma pithyophila*'
460	4632	2	for '(***Nothofagus alpina***)' read '(***Nothofagus alpina*** [***N. procera***])'
488	4924	3	for '***Malacosoma americana***' read '***Malacosoma americanum***'
490	4951	18	for '*Cryptorhynchus*' read '*Cryptorrhynchus*'
492	4974	10	for '*Cervus elephas*' read '*Cervus elaphus*'
527	5335	19	for '*Sclerophoma pityophila*' read '*Sclerophoma pithyophila*'
533	5399	1	for 'COMPANA, R.J.' read 'CAMPANA, R.J.'
533	5402	11	after '*gloeosporioides*' insert '[*Glomerella cingulata*]'
537	5440	4	for '*Cervus elephas*' read '*Cervus elaphus*'